

ABSTRACT OF THE DISCLOSURE

The present invention is directed to an internal multi-band antenna with multiple layers. The internal multi-band antenna comprises a main radiation patch for forming an upper side of the antenna, one side of the main radiation patch connected to a feeder, the main radiation patch including a plurality of strips in the same plane and formed by a folded slit patch of maze type; and at least one auxiliary radiation patch bent downwardly at one side of an edge of the main radiation patch and formed in parallel to the main radiation patch between the main radiation patch and a feeder ground plane. In addition, the internal multi-band antenna further comprises a feeder connected to one side of the main radiation patch for transmitting receive signals of the antenna and radiation signals of a body of the portable terminal; a feeder extension extending vertically from a predetermined position in a longitudinal direction of the feeder; and an inverted Y type feeder structure formed by a feeder ground bent at an end of the feeder extension and contacting a ground plane.